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by

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Re:	Application of:	Jagannathan et al.
	Serial No.:	10/524,311
	Filed:	November 21, 2005
	For:	Method for Routing of Data Packets and Routing Apparatus
	Group Art Unit:	2478
	Confirmation No.:	6425
	Examiner:	Shaq Taha
	Docket No.:	1890-0188

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested for the reasons stated on the attached sheets. This paper is filed by the Attorney of Record.

**I. Reasons for Review**

Review is requested because there is clear error in the Final Office Action dated July 21, 2010 ("Final Action") and the subsequent Advisory Action dated October 25, 2010. Independent claims 18, 30 and 36 all stand rejected as allegedly being obvious over U.S.

Patent Publication No. 2003/0033430 to Lau (hereinafter “Lau”) in view of U.S. Patent Publication No. 2002/0174203 to Kuhn et al. (hereinafter “Kuhn”). The clear error is that the Examiner has not established why someone would modify a monitoring system, such as taught by Lau, to perform the operations of the routers taught by Kuhn. Specifically, the Examiner has not identified a legally sufficient motivation or suggest to modify Lau to perform the step of “switching the data packet to an output link associated with the forwarding address corresponding to the entry, wherein each entry of the routing table comprises compressed forwarding address and an output link member...”, as recited in claim 18, and as substantially recited in claims 30 and 36.

## **II. The Relevant Limitation of Claim 18**

The Examiner has admitted that Lau, the primary reference, fails to disclose the following relevant limitations of claim 18:

...if a positive comparison between the compressed destination address identifier and an entry stored in the routing table is found in step (c), then switching the data packet to an output link associated with the forwarding address corresponding to the entry, and  
wherein each entry of the routing table comprises a compressed forwarding address and an output link number, and that, if a positive comparison between the compressed destination address identifier and a compressed forwarding address in an entry stored in the routing table is found, the data packet is switched to an output link associated with the output link number in the entry.

These limitations deal with “switching the data packet to an output link”, i.e., the operations of a router or switch. Specifically, as is well-known, and disclosed in the application as filed, routers operate to switch data packets to output links in order to direct packets toward a final destination. Lau, however, is not directed to a switch or router, and does not switch packets to a destination. Simply put, Lau is not directed to routing.

A. Lau's Flow Monitors Would Have No Reason to Switch Data Packets

Lau is directed to flow monitors (e.g. monitors 150, 160) that monitor flow and flow direction. The monitors 150, 160 are not even placed in the path of packet propagation. (See Lau at Fig. 1). Accordingly, Lau does not disclose, nor would have any reason to disclose “switching the data packet to an output link associated with the forwarding address corresponding to the entry, wherein each entry of the routing table comprises compressed forwarding address and an output link member...”, as recited in claim 18.

B. The Recited “Reason for Modifying” is Legally Insufficient and in Clear Error

After admitting the Lau fails to teaching the features of “switching the data packet to an output link” as claimed, the Examiner alleged that Kuhn teaches this limitation. However, the Examiner has not identified why or how such a modification would arrive at the claimed invention. Specifically, the Final Office Action recites the following reason for modifying Lau to incorporate the claimed “switching the data packets” operations otherwise lacking in Lau:

It would have been obvious ... to create the invention of Lau et al. to include the routing entries as taught by Kuhn et al. in order that “The second router consequently does not have to perform any of the three steps, mentioned at the outset, of decompression, of routing and of recompression. Instead, the second router can forward the IP packet immediately with the CID2 on the output link. The forwarding consequently takes place only through search for a table entry that can be executed very rapidly and is simple to implement” (Paragraph [0014]).

(Final Action at pp.4-5). Thus, the Final Action does not even specifically allege that one would modify Lau to perform the step of “switching the data packets”. *This fact alone constitutes clear error.* In other words, even if Lau were modified to include “routing entries” as proposed, simply placing routing entries in the compressed information of Lau does not, *ipso facto*, cause the flow monitors of Lau to perform the operation of “switching the data

packets”. Lau’s flow monitors simply do not perform such an operation, and even if they stored “routing entries” in their address tables, they would not somehow gain such a function.

Moreover, nothing in the above paragraph *in any way* provides a reason to modify a flow monitor of Kuhn to perform a completely unrelated operation of “switching the data packets”. While Kuhn certainly teaches a routing device that performs switching of data packets, Lau does not. There simply is no reason to convert Lau’s “flow monitors” into “routers”, as apparently proposed.

C. No Reason to Combine Teachings of Lau  
Into Kuhn in any Way Relevant to Claims

In addition, the Advisory Action appears to hint at the possibility of modifying Kuhn with the teachings of Lau. (See final paragraph of p.2 of Advisory Action). It is not clear exactly how the two references would be combined in this manner, nor any reason given for such a combination.

Regardless, one of ordinary skill in the art would have no reason to make such a modification. In particular, Kuhn teaches a method of forwarding packets based something known as a Context Identifier (“CID”). (Kuhn at Abstract). Kuhn teaches this operation in the context of packets having compressed header information. (*Id.* at ¶ 0011). Kuhn teaches that by using the CID to forward packets, the steps of decompression, routing and recompression may be avoided. (*Id.*) In other words, because the packets are forwarded based on CID information (which is different than the compressed destination information), there is no need to decompress the header information, perform the routing match, and the recompress the header information.

To the extent the Advisory Action implies replacing the routing operation of Kuhn with pieces of the compression/matching operation of Lau, the Advisory Action provides not indication of how the routing operations of Kuhn would be improved by replacing the CID-based forwarding taught by Kuhn with the matching/look-up operations of Lau. Indeed, Lau's operation requires compression of extracted destination addresses. (See Lau at ¶ 0045). This would directly contravene the goal of Kuhn to forward packets while *avoiding* the steps of decompression and recompression. Because the CID-based routing operation of Kuhn already achieves this goal, one of ordinary skill in the art would not replace this operation with that of Lau, which fails to achieve this goal.

### **III. Conclusion**

For all of the foregoing reasons, it is respectfully submitted that claim 18 is in a condition for allowance. Because independent claims 30 and 36 also include limitations similar to those discussed above, those claims are in a condition for allowance as well. The remaining dependent claims are allowable through their dependencies on claims 18, 30 and 36. Favorable reconsideration of the application is respectfully requested.

Respectfully Submitted,

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